

# ***THE PART 15 COALITION***

October 11, 2007

## **ELECTRONIC SUBMISSION**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

**Re: In the Matter of Amendment of the Commission's  
Part 90 Rules in the 904-909.75 and 919.75-928 MHz Bands  
WT Docket No. 06-49  
Notice of Ex Parte Presentation**

Dear Ms. Dortch:

This is to inform you that on October 10, 2007, in connection with the above-referenced docket, the undersigned, counsel for the Part 15 Coalition, met with Renee Crittendon, Legal Advisor to Commissioner Adelstein.

The purpose of the meeting was to discuss the above-referenced NPRM, and specifically the Coalition's position with regard to its counterproposal and the proposals of other parties. The substance of the discussion is outlined in the attached submission and detailed in the record of this proceeding.

Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,

/s/  
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/s/  
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Attachment

cc: Renee Crittendon, Office of Cmmr. Adelstein

# **Amendment of the Part 90 Rules in the 902-928 MHz Band (LMS)**

**(WT Docket No. 06-49)**

**Part 15 Coalition**

**October 10, 2007**

# Part 15 Coalition Participants

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- American Water Works Association
- American Petroleum Institute
- Association of American Railroads
- Boston Scientific, Inc.
- Cellnet Technology, Inc.
- Datamatic, Ltd.
- Elster Electricity, LLC
- Freescale Semiconductor, Inc.
- FreeWave Technologies, Inc.
- Intellflex Corporation
- Itron, Inc.
- Motorola
- Plexus Research, Inc.
- Symbol Technologies, Inc.
- United Telecom Council
- Vocollect, Inc.
- Zebra Technologies Corp.

# Other Part 15 Parties

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- Bay State Gas Co.
- Boston WiFi
- Champaign-Urbana Community Wireless Network
- Charlotte Mecklenburg Utilities
- City of Richmond, Department of Public Utilities
- Consumer Electronics Association
- Duquesne Light Company
- IEEE 802.18 Radio Regulatory Technical Advisory Group
- Mt. Vernon Net, Inc.
- New America Foundation, et al. (13 public interest groups)
- North Shore Gas Co.
- NYCWireless
- The Peoples Gas Light and Coke Company
- Philadelphia Water Department
- Piedmont Natural Gas
- Progress Energy
- Semco Energy, Inc.
- Silver Spring Networks, Inc.
- Southern Company Services
- Washington Gas Light Co.
- Southern Connecticut Gas
- Tampa Electric
- Telecommunications Industry Association
- TriSquare Communications
- Wave Wireless Corp.
- Wireless Internet Service Providers Association

# Present Uses of 902-928 MHz

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- ISM devices (industrial, scientific, and medical) – unlimited power
- Amateur radio – 1,500 watts (secondary)
- Location and Monitoring Service (LMS) – 49 watts
- Federal radar – unknown power
- Federal fixed and mobile – unknown power (secondary)
- Part 15 (unlicensed devices) – 0.001-4 watts
  - meter reading, RFID, Zigbee, home security, industrial remote controls, cordless phones, medical devices, home audio and video, many more.

(Power ratings are not directly comparable.)

# Success of Part 15 at 902-928 MHz

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- Billions of dollars, hundreds of millions of devices
- Consumer market: vast numbers of products
- Commercial/industrial (examples):
  - automatic meter reading (60 million in use)
  - electric, natural gas, other utilities: mission critical SCADA (supervisory control and data acquisition), control of switching equipment, managing power grids
  - rail management
  - Zigbee networks
  - RFID (electronic labeling)
  - remote controls – cranes, etc.

# Progeny Request

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- “Flexibility to offer whatever services the market can support and demand”
- Purpose is ***not*** to meet some urgent and identified public need
  - primarily to recoup an improvident investment
- Progeny claims new rules are needed to use the band efficiently
  - nonsense: this is among the most densely used bands anywhere in the spectrum.

# Failure of Multilateration LMS

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- Original goal: to monitor location of fleet vehicles
- Timetable:
  - February 1995 – service authorized
  - March 1999 – first M-LMS auction
  - May 2000 – GPS accuracy improved
  - June 2001 – second M-LMS auction
- Auctioned M-LMS systems in use: none.



# Part 15 Coalition Response

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- The current rules strike an appropriate balance between Part 15 and M-LMS
  - resulted from careful negotiation and consideration in 1995
  - Progeny offers no persuasive reason for change
  - the present balance should be maintained
- The Part 15 Coalition does not oppose expanding M-LMS services
- We object only to increased interference to Part 15.

# Progeny Part 15 Usage Studies Are Wrong

- Progeny says the the 902-928 MHz band is “95.7% free” and the LMS C block is “99.2% free.”\*
- Progeny looked only for high-power, high-duty cycle signals
- Progeny missed millions of Part 15 devices because:
  - most operate at low power and short range
  - most use low duty cycles
  - most work under poor propagation
  - some have directional antennas.

\* Progeny ex parte (filed March 14, 2007).

# Progeny Interference Studies Are Wrong

- Progeny: 49-watt M-LMS will not interfere with Part 15 at far lower power
- Some of Progeny's errors:
  - analyzes only wireless LANs, Ricochet, meter readers, cordless telephones – gets each one wrong
    - neglects (for example): home security, consumer audio, RFID, Zigbee, industrial controls, SCADA, much more
  - relies on unrealistic assumptions (*e.g.*, max-power Part 15 on a rooftop 500 feet from every home)
  - ignores the very low power of most Part 15.

# **“Safe Harbor” for Part 15**

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- Part 15 that meets certain conditions (power, antenna, etc.) is deemed not to interfere with LMS
- Manufacturers and users rely on this “safe harbor” in investing in the design, manufacture, deployment
- Progeny seeks to abolish the rule going forward and impose substantial new costs on consumers of Part 15 devices and services
  - but offers no change in circumstances or other justification that warrants a change to the rule.

# Interference Testing Requirement

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- Needed to prevent interference not only in the lab, but in the real world
- Progeny complains there has been no testing in 10 years
  - but M-LMS has no equipment to test!
  - Part 15 will test when M-LMS is ready
- Part 15 agrees the requirement needs more specificity.

# Part 15 Counterproposal

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- As soon as Progeny filed technical details, Part 15 offered a prompt counterproposal
- CPE: we accept Progeny's power limits, but oppose increases under ill-defined “emergency conditions”
- Base stations: we accept Progeny's power limits, but request a duty cycle limitation
- We urge retention of current safe harbor, testing rules
  - Progeny's “coordination” proposal is unworkable; millions of consumer devices cannot coordinate.

# Conclusion

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- The Commission should respect the great public interest in successful Part 15 operation
- Any new M-LMS rules should protect Part 15 from increased interference
- Part 15 has put forward a workable counterproposal.

# Thank you!

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